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Dr. Frederick R. Dowsett
Colorado Department of Health
Hazardous Materials and Waste Management Division
4300 Cherry Creek Drive South
Denver, Colorado 80222-1530

Dear Dr. Dowsett:

Facility footing wastewater is collected from a foundation dewatering sump near Building 559 at the Rocky Flats Plant. Foundation dewatering is a necessary process to prevent leakage into an attached tunnel and to preserve the structural integrity of the building. Chlorinated hydrocarbons have recently been reported in this water, in particular carbon tetrachloride at concentrations of approximately 200 parts per billion (ppb). The total concentration of detected organics is approximately 500 ppb. EG&G Rocky Flats, Inc. (EG&G) estimates that discharge rates will range from 50 to 350 gallons per day, depending on weather conditions.

The U. S. Department of Energy and EG&G have evaluated a number of options for handling this water. We believe that the Sewage Treatment Plant (STP) is the option that most effectively treats this water and is therefore most protective of human health and the environment. As we discussed with you on March 19, 1993, we believe that the water is most appropriately characterized as non-hazardous wastewater in accordance with an exclusion provided in Section 261.3(a)(2)(iv) of the Colorado Hazardous Waste Regulations (6 CCR Part 1007-3). You verbally concurred with our assessment at that time and Gary Baughman verbally confirmed this assessment in a telephone conversation with T. Lukow of my staff on April 5, 1993. However, since the U. S. Environmental Protection Agency has questioned our application of this exclusion, we have provided a detailed basis to support application of this exclusion in the attachment to this letter.

We would appreciate your written concurrence with our assessment (outlined in the attachment to this letter) that the water being collected near Building 559 can be characterized as non-hazardous wastewater in accordance with the Colorado Hazardous Waste Regulations and discharged to the STP. If you have any questions or desire a meeting to discuss this issue, please contact Tom Lukow at 966-4651.

Enclosure:
As Stated

cc:

G. W. Baughman	-	CDH
T. E. Lukow	-	DOE, RFO
M. Dodson	-	EPA, Region VIII
M. Hestmark	-	" " "
D. M. Maxwell	-	" " "
R. D. Shankland	-	" " "
T. G. Hedahl	-	EG&G Rocky Flats, Inc.
A. L. Schubert	-	" " " "
W. A. Kirby	-	" " " "

**POSITION PAPER FOR WATER COLLECTED IN
BUILDING 559 DEWATERING SUMP**

In accordance with Section 261.2 of the Colorado Hazardous Waste Regulations (CHWR, 6 CCR 1007-3), a solid waste is any discarded material not excluded by Section 261.4(a) of the CHWR. A discarded material is any material accumulated, stored or treated before, or in lieu of, being disposed. Section 30-20-101(6) of the Colorado Revised Statutes further adds to this definition by stating that a solid waste is a discarded material resulting from industrial, commercial, mining, and agricultural operations. Following is our basis for determining that the water from the Building 559 dewatering sump meets the regulatory and statutory definitions of solid waste:

- a. The water is not excluded under Section 261.4(a) of the CHWR.
- b. The water is currently being stored, will eventually be disposed of, and therefore meets the definition of a solid waste found in the CHWR.
- c. The dewatering process and footing drain system surrounding Building 559 is an inherent part of the building's operations and, as such, the water generated from the system is a waste generated by an industrial operation. This fact (combined with the fact that the water is a discarded material not specifically excluded from the definition of a solid waste) leads to the conclusion that the water meets the statutory definition of a solid waste.

This water, defined as a waste in the discussion above, is wastewater in accordance with the definition of wastewater found in Section 268.2 of the CHWR. Per this definition, a wastewater is a waste that contains less than 1% by weight total organic carbon or less than 1% by weight total F001, F002, F003, F004, F005 solvent constituents listed in Section 268, Table CCWE. Analytical results have consistently shown that the Building 559 water meets this definition.

In accordance with Section 261.3 of the CHWR, a solid waste is hazardous if it is not excluded under Section 261.4(b) and it exhibits a hazardous characteristic, is specifically listed as hazardous, or is mixed with a listed hazardous waste (unless the mixture can be excluded under certain conditions). Following is our basis for determining that the subject wastewater is not hazardous:

- a. The wastewater is not excluded from the definition of a hazardous waste under Section 261.4(b) of the CHWR, so it must be evaluated further to determine if it is a hazardous waste.
- b. Based on analytical data, the water does not exhibit a characteristic of a hazardous waste (i.e., it is not corrosive, ignitable, reactive or toxic).
- c. The wastewater that is being collected is not specifically listed as a hazardous waste in the CHWR.

Note: We considered the definition of listed waste F039, which is leachate resulting from the disposal of wastes classified by more than one waste code under Subpart D or from a mixture of wastes classified under Subparts C and D of the CHWR. However, only one waste code is likely to have been inadvertently disposed near Building 559, namely F002. Therefore, the water would not meet the definition of F039.

The basis for stating that only F002 would be found in the area is as follows: Possible sources of organic chemicals found in the area are F001 wastes (spent solvent used for degreasing), F002 wastes (spent solvent), U Series wastes (discarded commercial chemical products), and other non-regulated sources (e.g., carbon tetrachloride used as part of a chemical extraction process or 1,1-Dichloroethene at concentrations below RCRA toxicity limits which result from the decomposition of other organic chemicals). Historical records and interviews with building personnel indicate that carbon tetrachloride and the other solvents

were most likely used at the building only as solvents in the production analytical laboratory. Furthermore, an old process waste line located near the footing drain system, which would have carried wastewater containing these spent solvents, was found to have leaked. The line was excavated several years ago and approximately 20,000 cubic yards of radioactively contaminated soil was removed. However, low concentrations of residual solvents that are not an imminent threat to human health and the environment likely remain in the area. In addition, it seems unlikely that clean, unused solvents would have been dumped in this area. Thus, the wastewater being collected is a mixture of water and dilute concentrations of spent solvents. The solvents in this mixture most likely originate only from residuals of an F002 waste remaining in the area.

- d. The wastewater collected could be considered a mixture of a solid waste and a listed waste (F002). However, in accordance with Section 261.3(a)(2)(iv), a mixture of a solid waste and listed hazardous waste is not a hazardous waste if certain concentration limits for the solvents are met at the entrance to the facility's wastewater treatment system and the mixture consists of wastewater whose discharge is subject to regulation under Section 402 of the Clean Water Act. The subject water is most appropriately determined to be non-hazardous under Sections 261.3(a)(2)(iv)(A) and 261.3(a)(2)(iv)(B) since:

- (1) the wastewater will be discharged to the STP, and
- (2) the STP is regulated under Section 402 of the Clean Water Act, and
- (3) and it can be shown that the concentration limitations for the solvents would be met at the entrance to the STP. The limitations specified in the CHWR are 1 ppm some of the solvents detected in the wastewater and 25 ppm for others.

Alternatively, the subject water is determined to be non-hazardous under the exclusion for wastewaters resulting from laboratory operations (in accordance with Section 261.3(a)(2)(iv)(E) of the CHWR).

Discharge of the subject wastewater to the STP would be regulated under Section 402 of the Clean Water Act by way of the current NPDES Permit. In accordance with 40 CFR 122.62, NPDES regulations do not require modification of the existing permit for non-limited pollutants if effluent levels are not expected to exceed treatment requirements. The solvents found in the subject wastewater do not have STP effluent limitations (i.e., are non-limited) and as such are regulated by 40 CFR 122.62. Since the concentrations of solvents in the subject wastewater are very low, they should have no effect on the STP effluent and no modification of the NPDES permit is required per 40 CFR 122.62.

In addition to the regulatory basis for this exclusion, we believe the intent of the wastewater exclusion (as stated in the preamble of 46 FR 56582) is technically appropriate. In this preamble, EPA stated that "The Agency concluded that, if the spent solvent concentrations in the wastewater mixture are limited to 1 and 25 ppm, the wastewater treatment process will typically reduce these concentrations in any releases of the wastewater to levels that do not pose substantial harm to human health or the environment." EPA went on to state that "even where wastewater releases occur prior to full treatment, attenuative mechanisms will reduce spent solvent concentrations to levels that will not pose a substantial hazard to human health or the environment when the influent concentrations are limited to 1 and 25 ppm".

In addition to the discussion above, we believe that treatment of the subject water in the STP is the option that will most effectively treat this water and is therefore most protective of human health and the environment. The biological treatment process at the STP converts the contaminants to innocuous byproducts with minimal volatilization to the environment. All other options merely transfer the solvents to another media.